



DELAWARE'S

Climate Action Plan

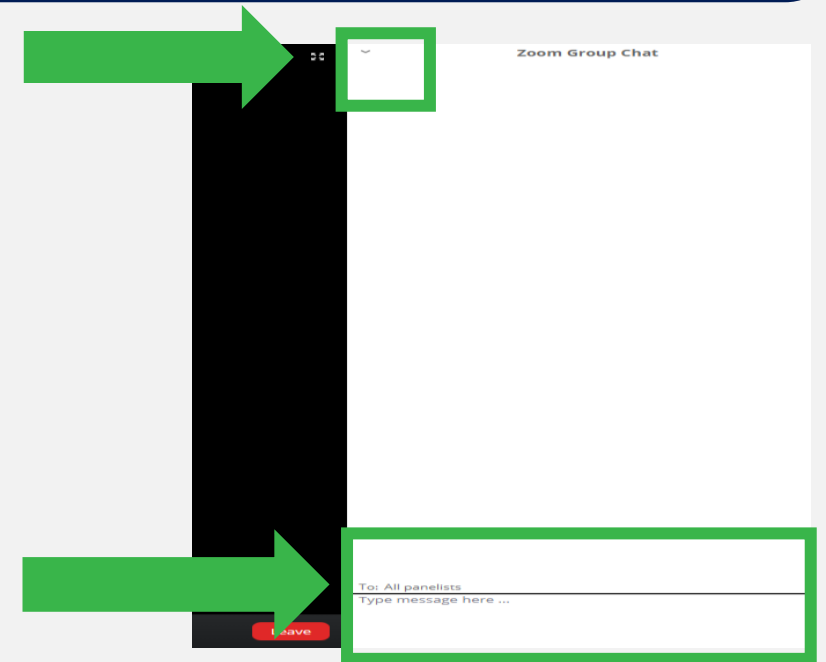
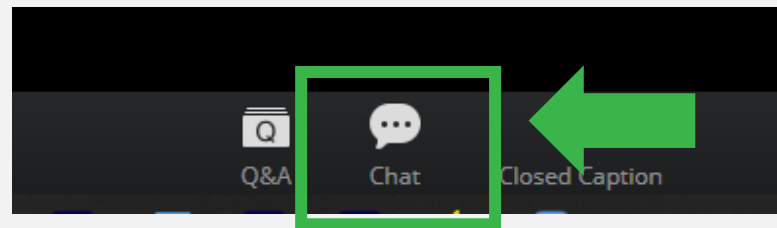
Welcome to Workshop 4:
Maximizing Resilience to Heavy Precipitation and Flooding
October 1, 2020
5:30 p.m. – 7 p.m.

Virtual Workshop Logistics:

Tech Support

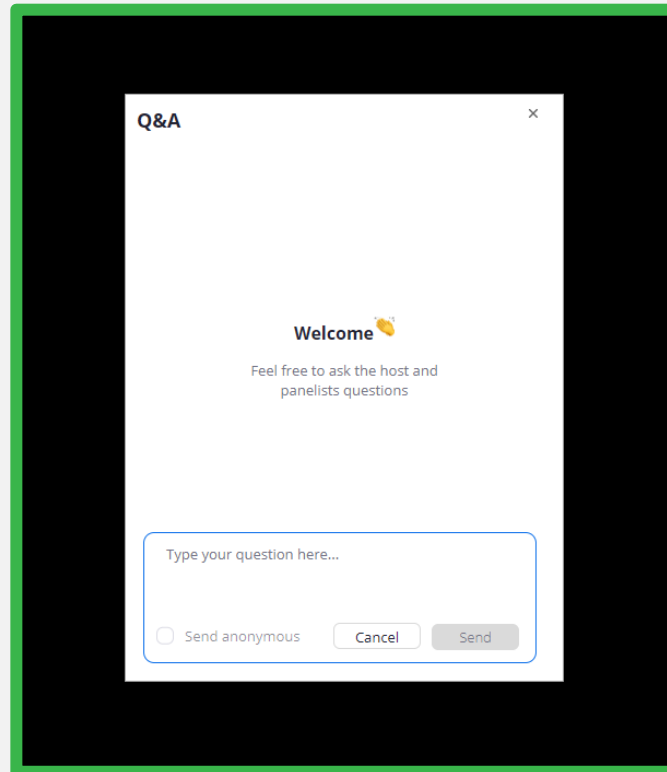
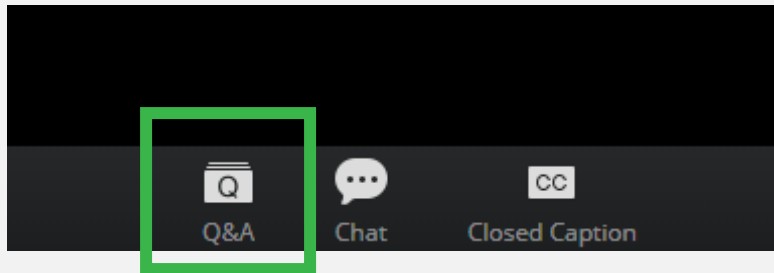
Get Tech Support

- Open your chat box.
- You can access the chat box by clicking the button at the bottom of your screen. A chat box will appear on the right side of your screen.
- Send a message to all panelists and someone will assist you. Please note that the other participants will NOT be able to see your question making it a private message.



Ask a Question or Submit a Comment

- Click the Q/A icon at the bottom of your screen to ask presenters questions or submit a comment.
- Presenters may not get to all questions, but they will try their best.
- If the Q&A function does not work, email questions or comments to declimateplan@delaware.gov anytime during the event.



Virtual Workshop Logistics:

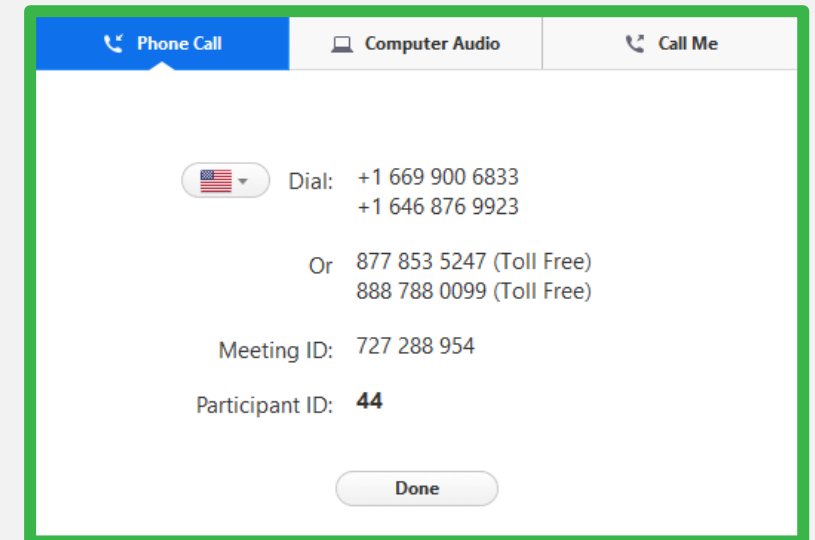
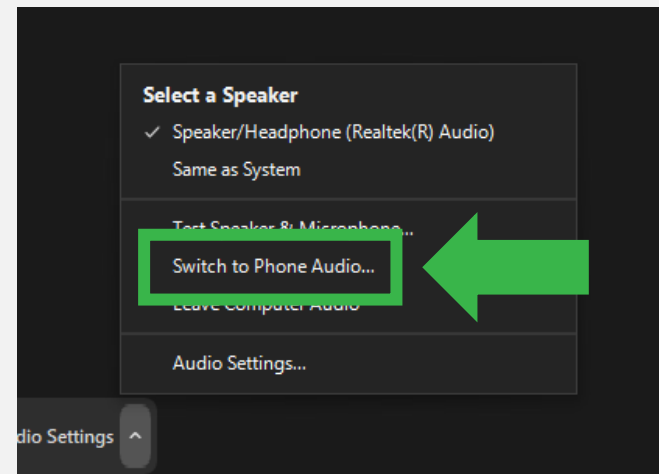
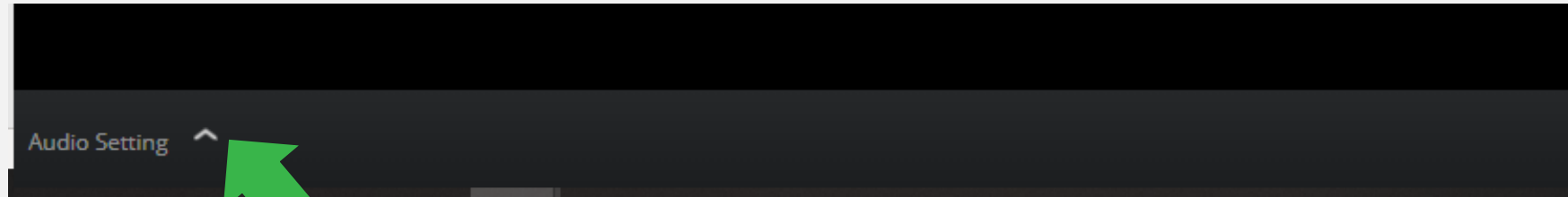
Questions and Comments

Virtual Workshop Logistics:

Audio

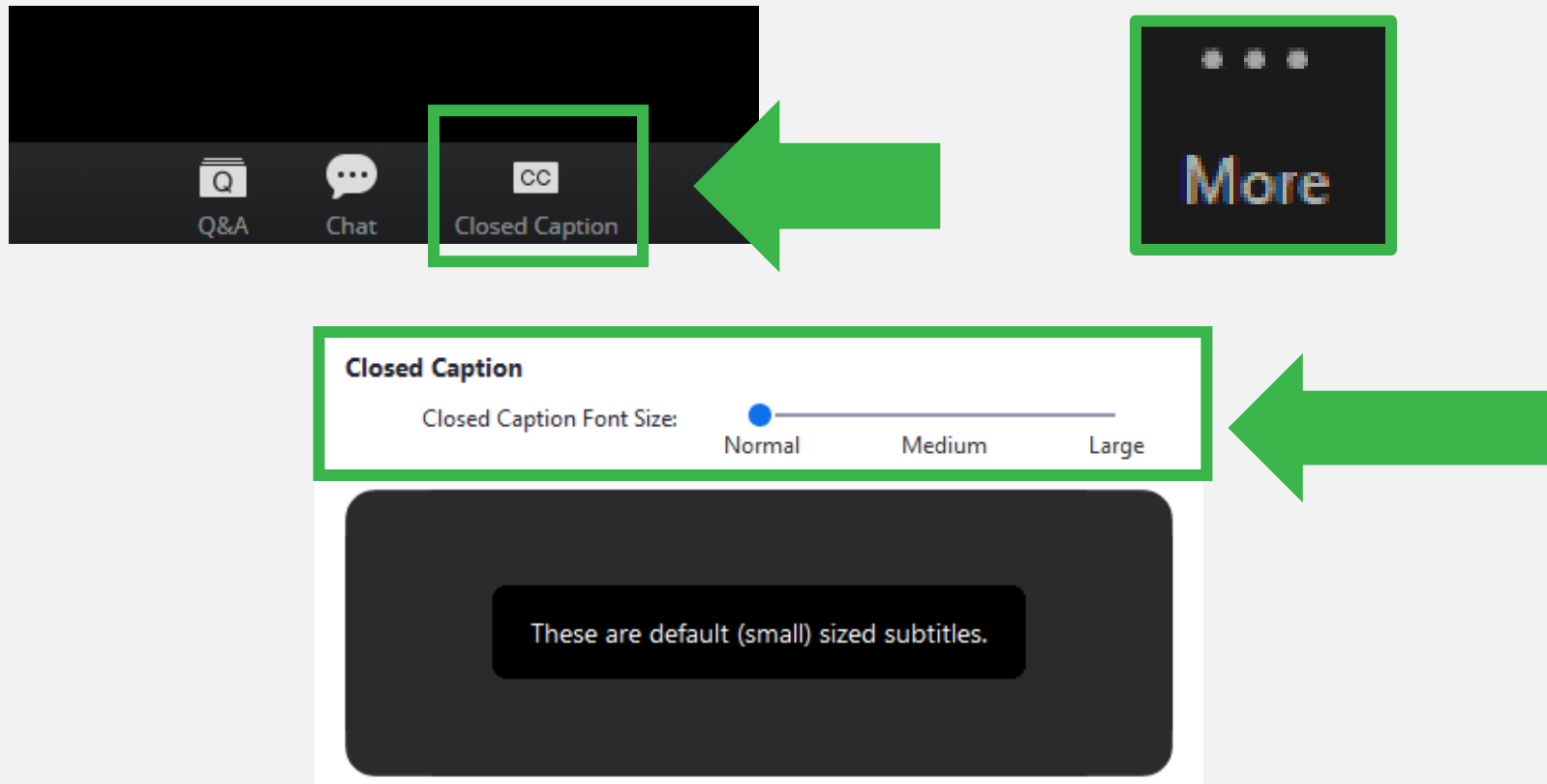
Make Sure Your Sound Works

- If you're using speaker audio and it doesn't work, try re-starting Zoom or click the "up" arrow and "Switch to Phone Audio".



Closed Captioning

- To turn on captions, click the closed captioning icon at the bottom of your screen and select “Show Subtitle”.
- To view captions that were typed previously, select “Show Full Transcript”, a new pop-up will appear with the transcript.
- To change caption size, click the “Closed Caption” icon again and select “Subtitle Settings”. Use the slider to change caption size.



Virtual Workshop Logistics:

Closed Captions

Agenda

5:30 p.m. – 5:40 p.m.

5:40 p.m. – 6 p.m.

6 p.m. – 6:45 p.m.

6:45 – 7 p.m.

7 p.m.

Workshop Introduction

Climate Change Impacts

Actions to Maximize Resilience

Questions and Wrap-up

Workshop Ends

Workshop Goals

Provide an overview of the Climate Action Plan and its development process.

Communicate how public input has shaped the planning process for the Climate Action Plan.

Provide overview of how actions identified for maximizing resilience were created.

Gather feedback on which actions to maximize resilience participants would like to see the state implement.

Workshop Facilitators and Presenters



Dr. Robert Scarborough

Division of Climate, Coastal and Energy
Delaware Coastal Management Program



Ms. Maggie Pletta

Division of Climate, Coastal and Energy
Delaware Coastal Management Program



Mr. Ian Yue

Division of Climate, Coastal and Energy
Climate and Sustainability Section



Ms. Kristen Thornton

Division of Climate, Coastal and Energy
Delaware Coastal Management Program



Ms. Nicole Marks

Division of Climate, Coastal and Energy
Delaware Coastal Management Program

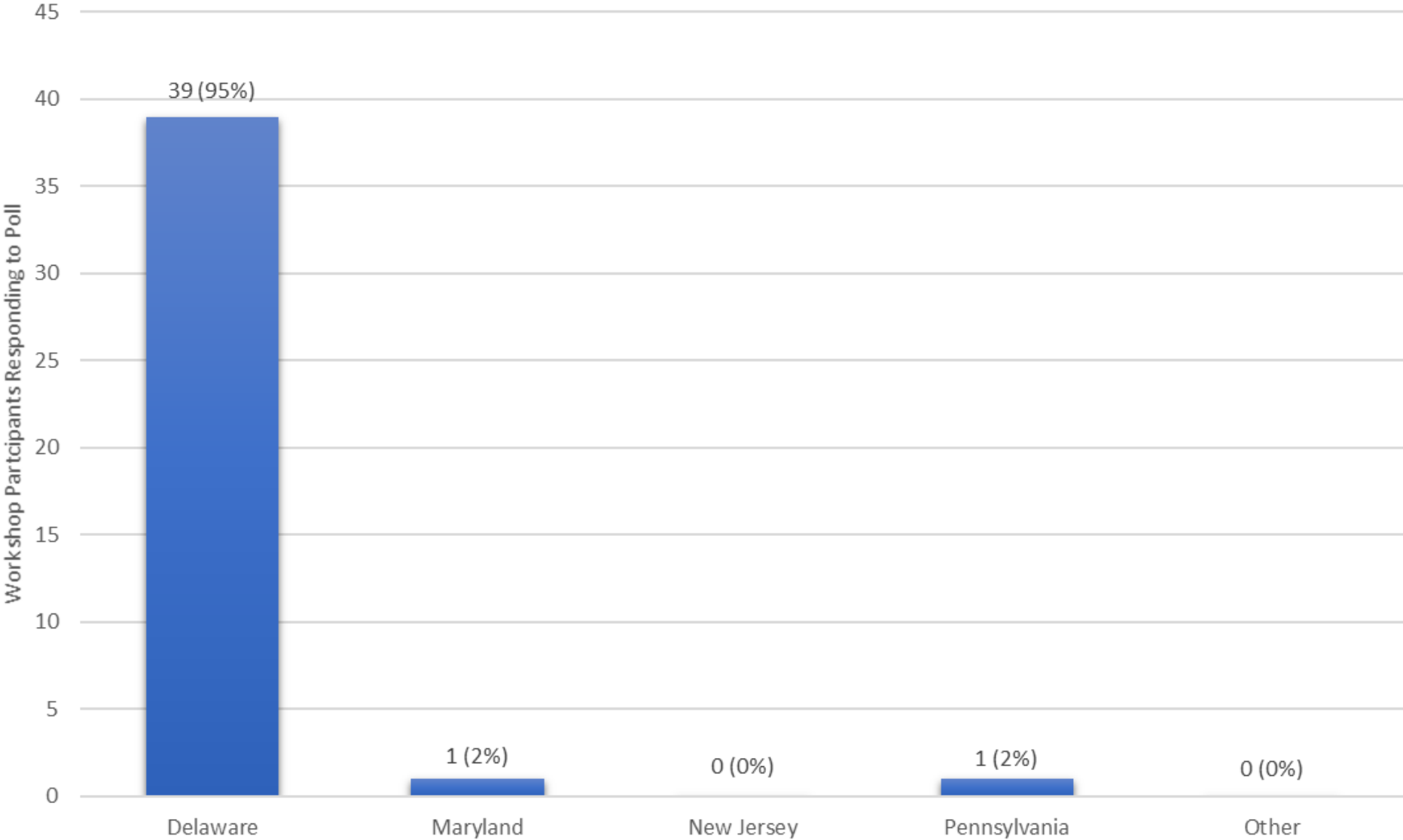
Getting to Know You

Where are you from?

- 1) Delaware
- 2) Maryland
- 3) New Jersey
- 4) Pennsylvania
- 5) Other



Zoom Poll: Getting to know you, where are you from?



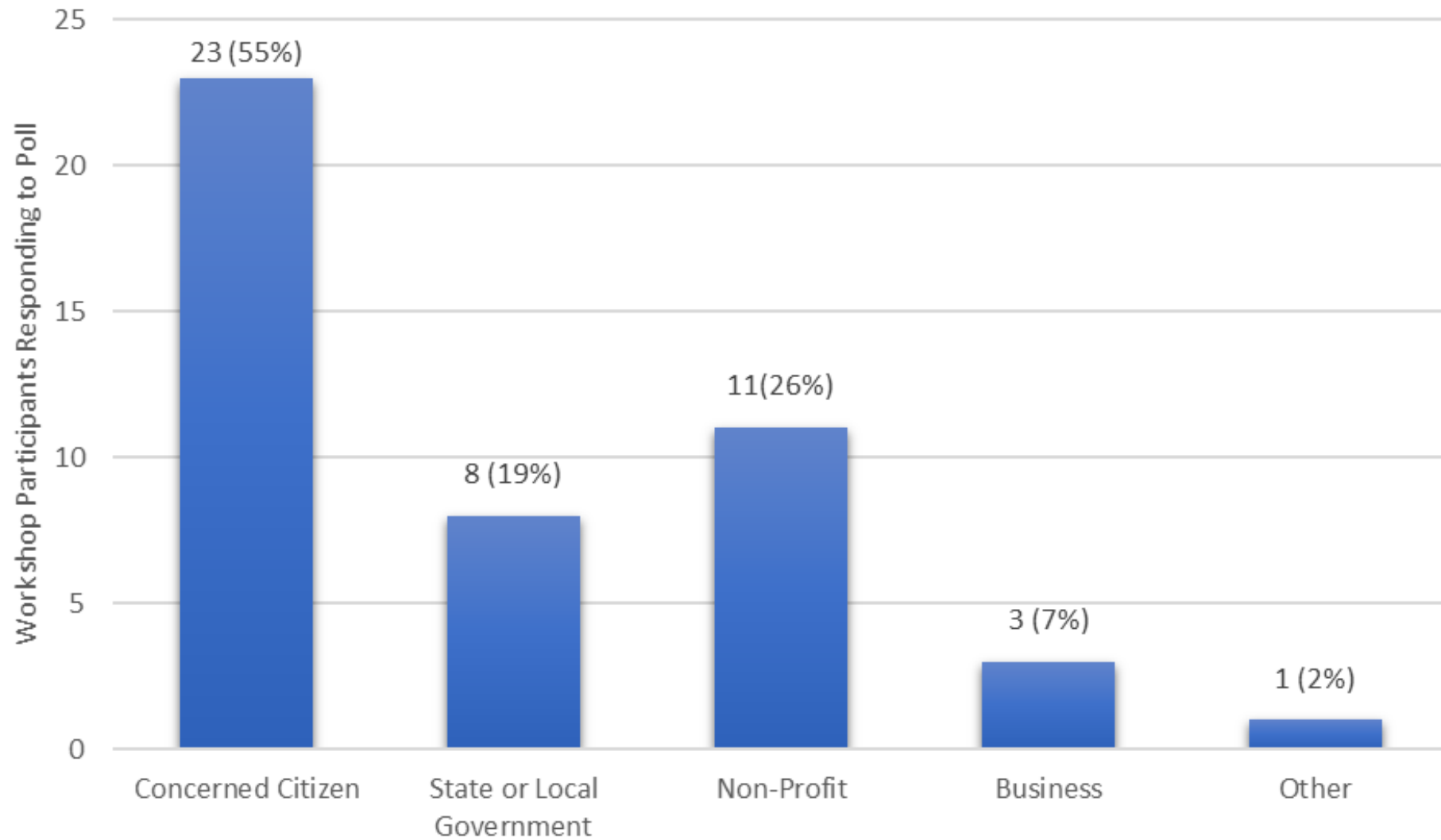
Getting to Know You

Organizational Affiliation?

- 1) Concerned Citizen
- 2) State or Local Government
- 3) Non-Profit
- 4) Business
- 5) Other



Zoom Poll: Getting to know you, who are you representing?



Climate Action Plan Overview

- The Plan will include actions to **minimize** and **maximize**:
 - **Minimize** greenhouse gas emissions, major driver of climate change
 - **Maximize** resilience to climate change impacts (e.g., increased temperatures, sea level rise, more extreme weather)
- **Provide information and actions** for state leaders to use in decision-making
- **Plan Release Date**: Winter 2021

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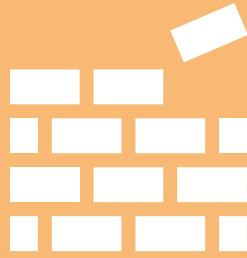
Climate Action Plan

Implementing Delaware's Climate Action Plan will protect and strengthen:

- Our agricultural and tourism economies
- The natural places we enjoy for recreation
- Our infrastructure
- The health of our residents and visitors



Developing the Climate Action Plan



Built on Past Efforts

- Statewide Sea Level Rise Planning Initiative
- Executive Order 41
- Literature Reviews



Interviewed Experts

- State Agencies
- Neighboring State Climate Programs
- Universities and Federal Agencies



Engaged Stakeholders

- Public Workshops in March
- Online Survey
- Submission of Comments



Climate Change Impact: Heavy Precipitation and Flooding

What's at risk from heavy precipitation?



Agriculture

- Field conditions
- Crop and livestock health



Human Health

- Mold and disease
- Emergency response



Infrastructure

- Dams, levees, and water control structures
- Roads, culverts, and bridges



Natural Resources

- Beaches and dunes
- Coastal and riparian habitats



Water Resources

- Drinking water systems
- Sewer and stormwater systems



Agriculture



- Contributes \$8 billion annually to our economy
- Field Conditions
 - Flooded fields
 - Loss of nutrients
- Crop and livestock health
 - Crop damage during storms
 - Increased pests



Human Health

- Mold and Disease
 - Increased mold production
 - Waterborne pathogens
- Emergency response
 - Increased need
 - Access issues





Infrastructure



- Dams, levees, and water control structures
 - Overtopping
 - Damage to structures
- Roads, culverts, and bridges
 - Damage to structure and function



Natural Resources

- Beaches and dunes
 - Erosion
- Coastal and riparian habitats
 - Changes in salinity
 - Streambank erosion





Water Resources



- Drinking water
 - Increased filtration
- Sewer and stormwater systems
 - Overflow
 - Localized flooding

What's at risk from heavy precipitation?



Agriculture

- Field conditions
- Crop and livestock health



Human Health

- Mold and disease
- Emergency response



Infrastructure

- Dams, levees, and water control structures
- Roads, culverts, and bridges



Natural Resources

- Beaches and dunes
- Coastal and riparian habitats



Water Resources

- Drinking water systems
- Sewer and stormwater systems

Recommendations

Management Plans

Outreach

Regulation and/or Policy

Facilities and Infrastructure
Design and Management

Research and Monitoring

Administrative Processes

Support for Communities
and Stakeholders



Management Plans

Update planning documents for natural resources, emergency response, state facilities, and Agency equipment.

Update current natural and agricultural land protection programs.

Asset management plans for long-term maintenance, repair, and decommission decisions.

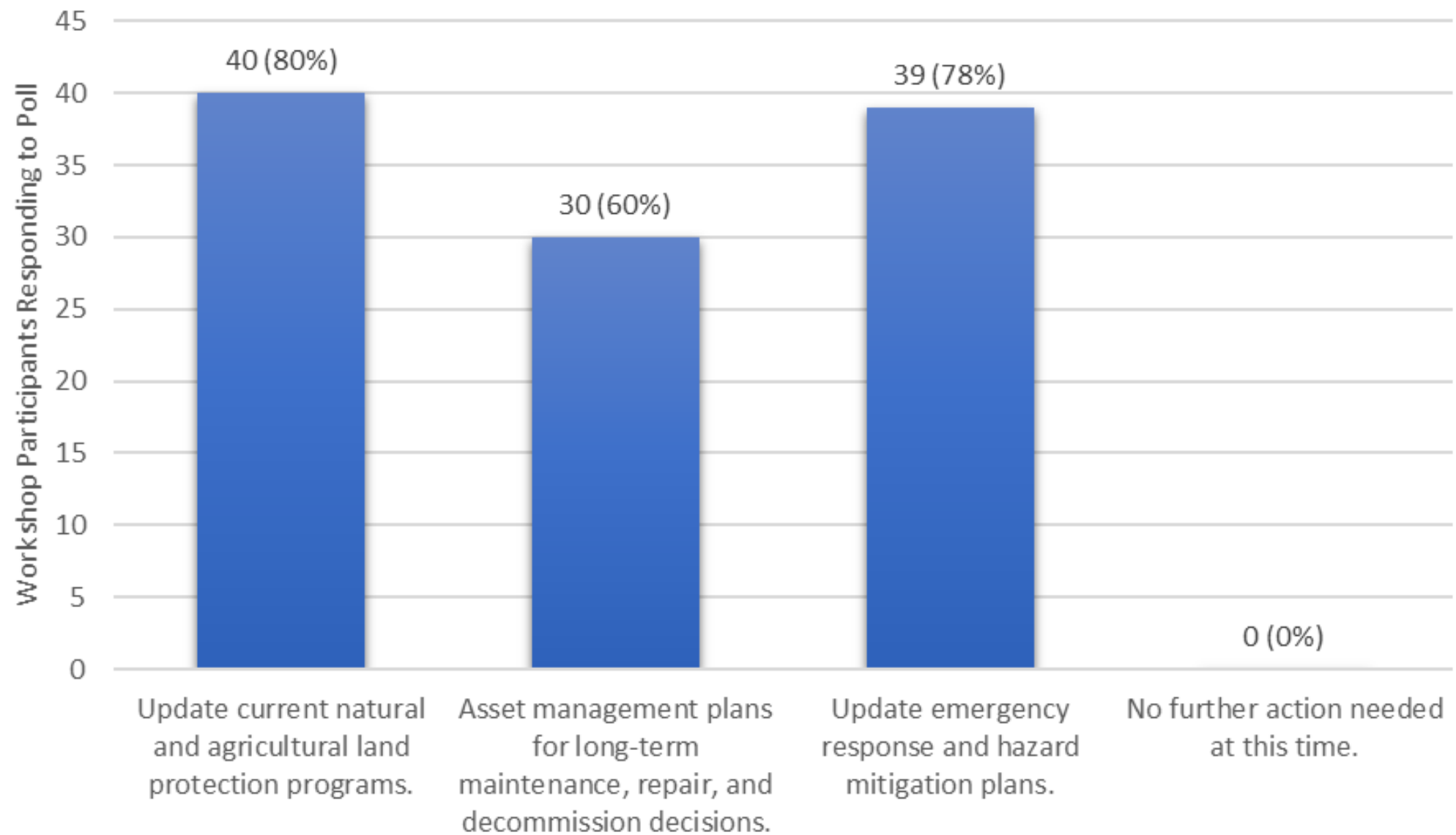
Update emergency response and hazard mitigation plans.

Zoom Poll



From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 1





Regulations and/or Policy

Update and/or change current regulations and policies to address protection and conservation of vulnerable and impacted resources.

A photograph of a large, multi-story brick building with a central clock tower and a balcony. The building is surrounded by green trees and a brick wall in the foreground. Two black metal benches are visible on either side of the wall.

Update Agency policies and guides.

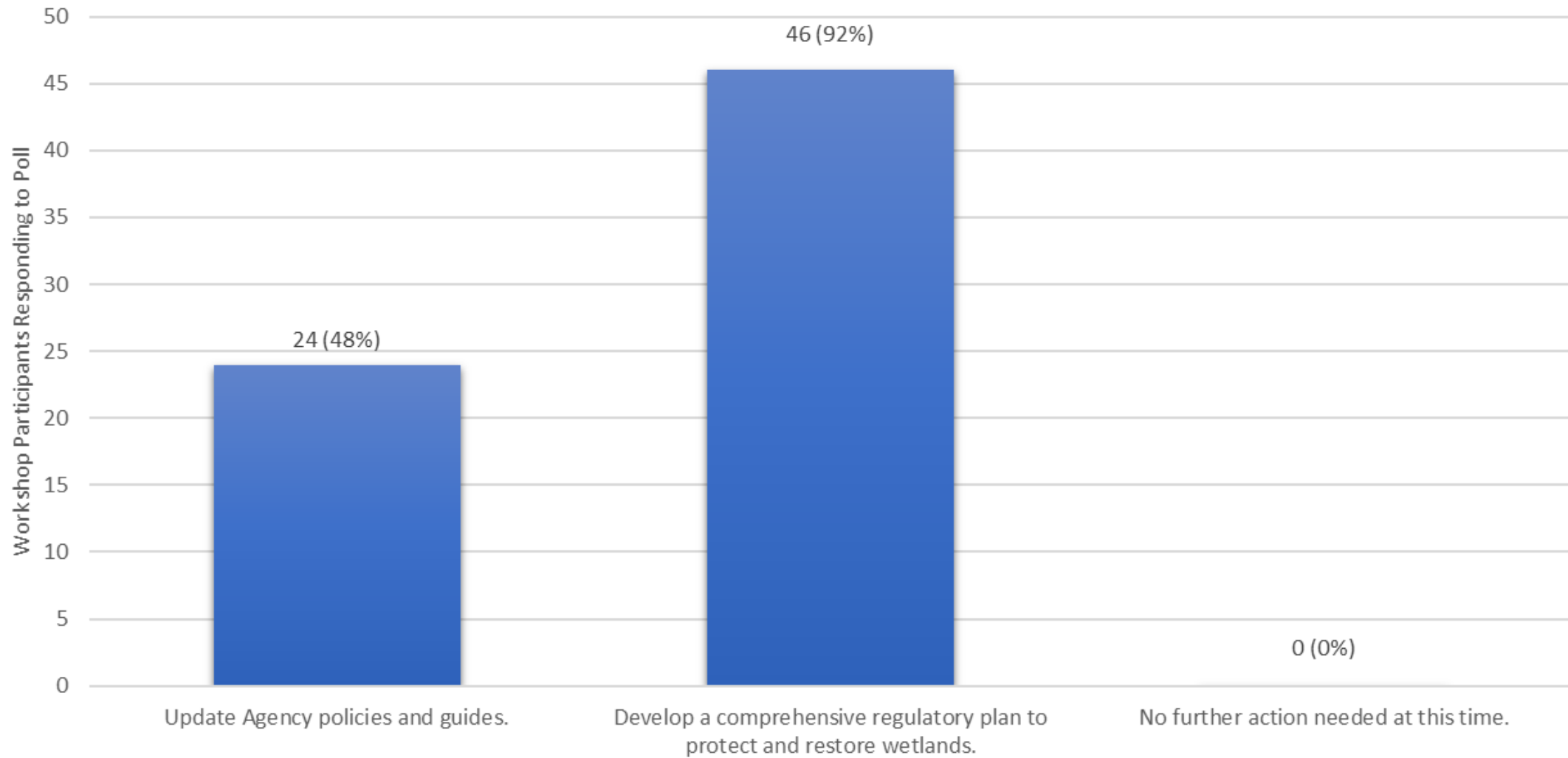
Develop a comprehensive regulatory plan to protect and restore wetlands.

Zoom Poll



From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 2





Research and Monitoring

Support monitoring of conditions and research that studies the impacts of climate change and methods of adapting.

Continue and expand research on impacts to infrastructure and facilities.

Continue, and expand, research, monitoring, and modeling of natural resources.

Collaborate within the Mid-Atlantic region to identify research opportunities.

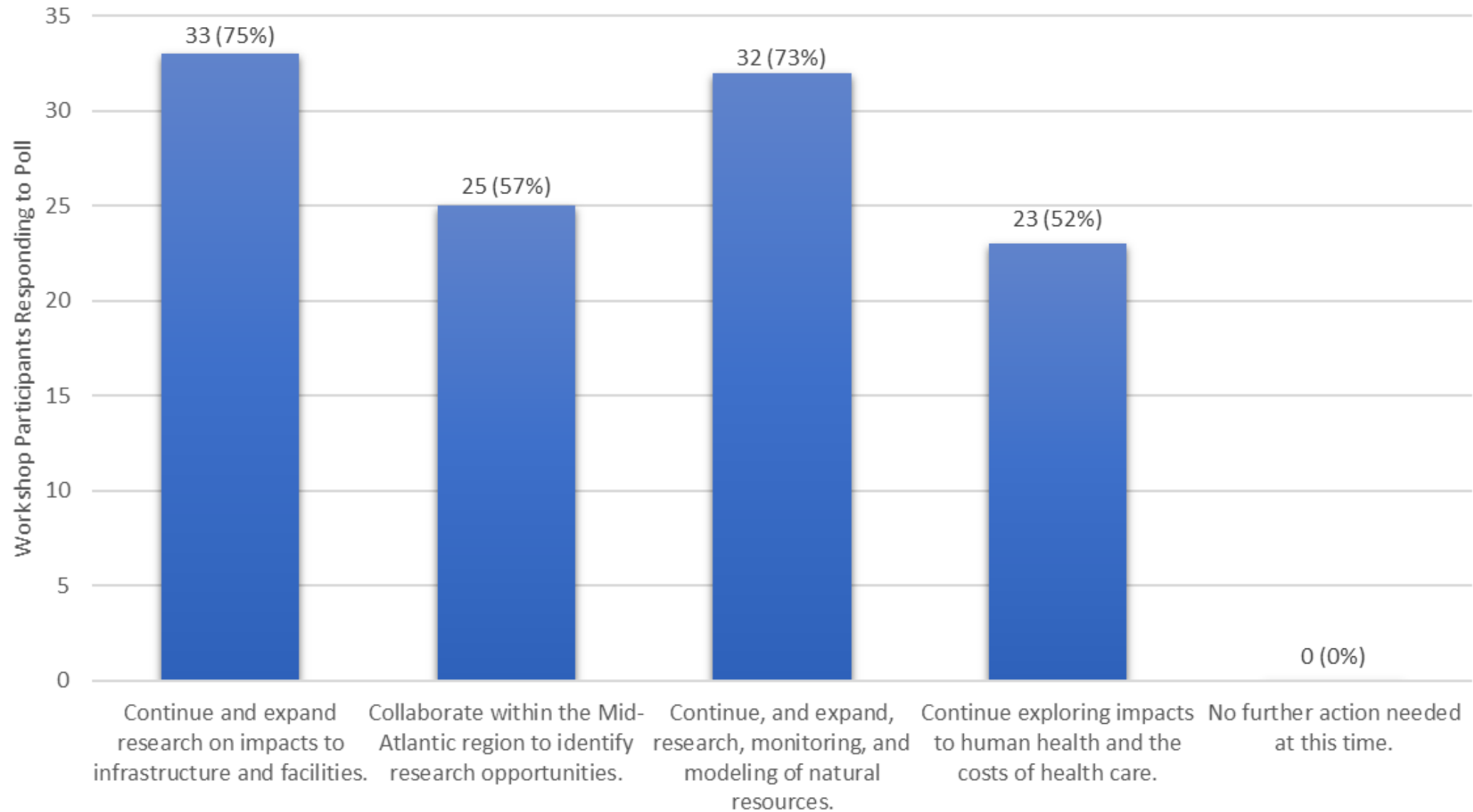
Continue exploring impacts to human health and the costs of health care.



Zoom Poll

From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 3





Support of Communities and Stakeholders

Help in the form of trainings, resources, and technical assistance.

Increase grant opportunities for communities for adaptation projects.

Provide outreach and tools to communities and homeowners.

Support programs and initiatives that help frontline communities.

Provide outreach, trainings, and tools to the public and agencies.

Assist local governments and water suppliers to identify vulnerabilities and adaptation actions.

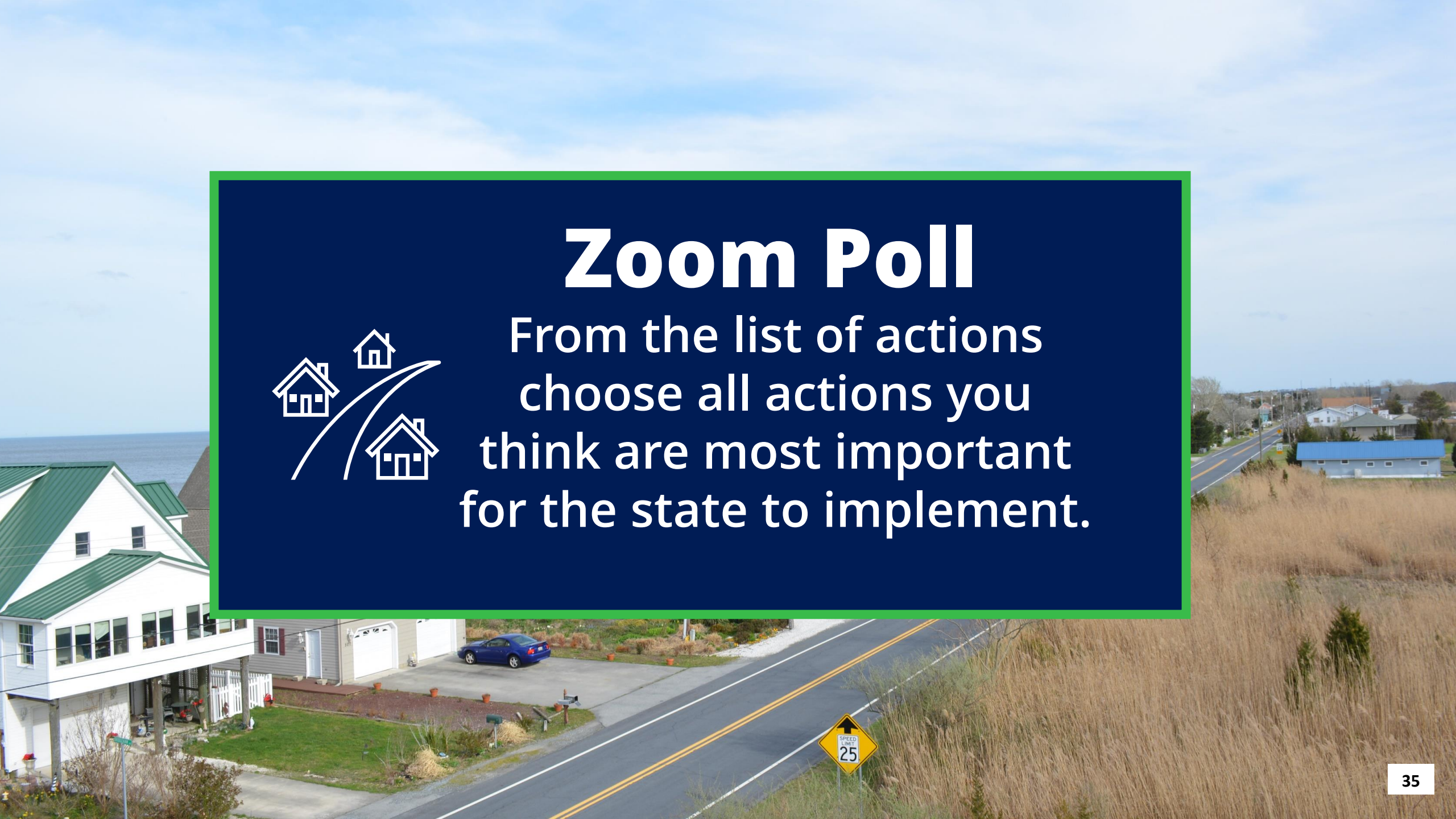
Provide outreach, trainings, and tools to the public and agencies on health impacts.

Assist local governments with updating ordinances/planning documents.

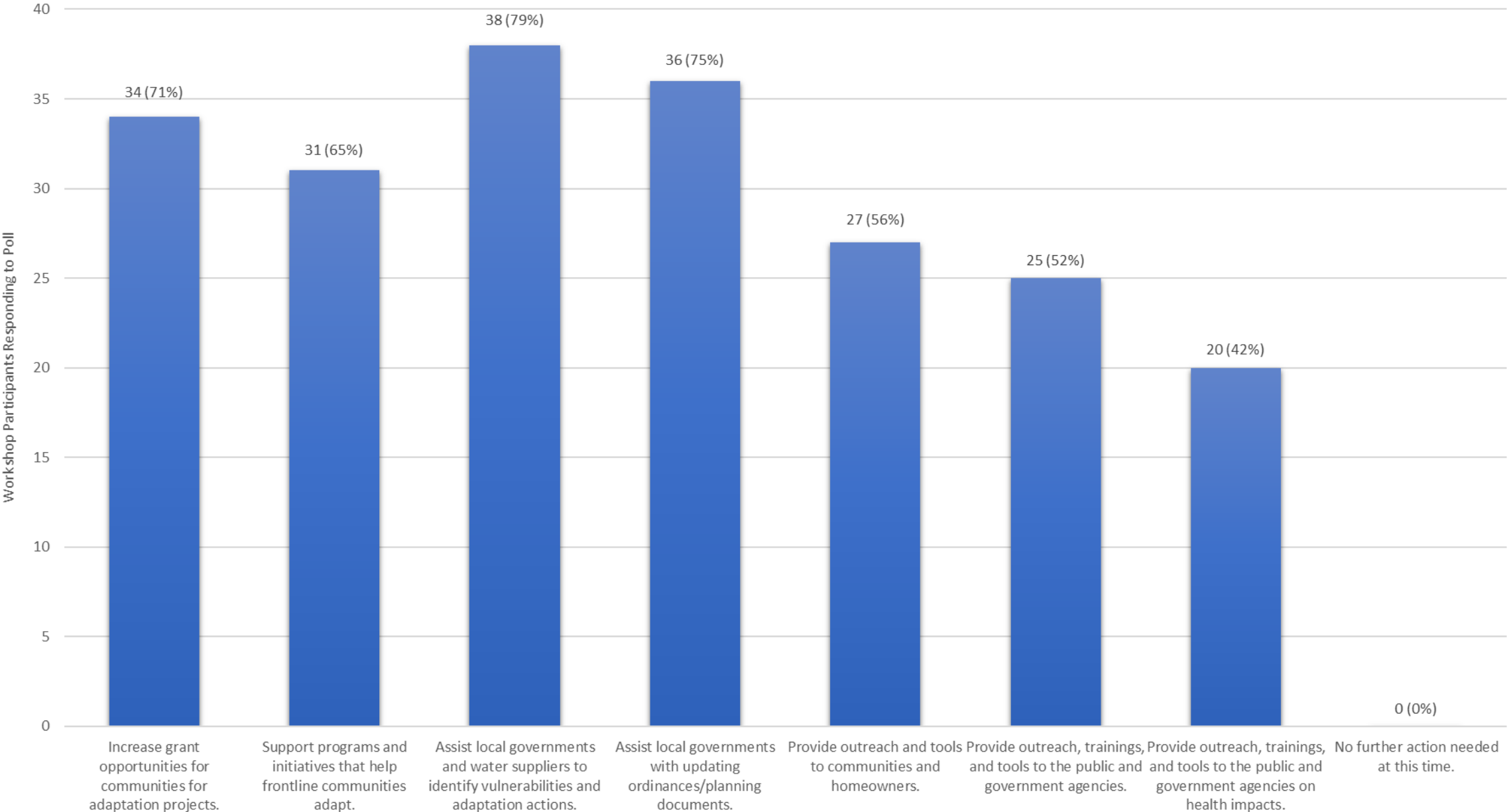
Zoom Poll



From the list of actions
choose all actions you
think are most important
for the state to implement.



Zoom Poll: Recommendation 4





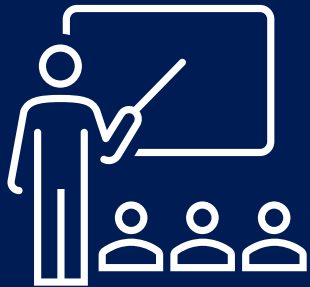
Outreach

Messaging to stakeholders and the public on climate change impacts and adaptation.

Develop communication tools and resources, in both English and alternate languages.

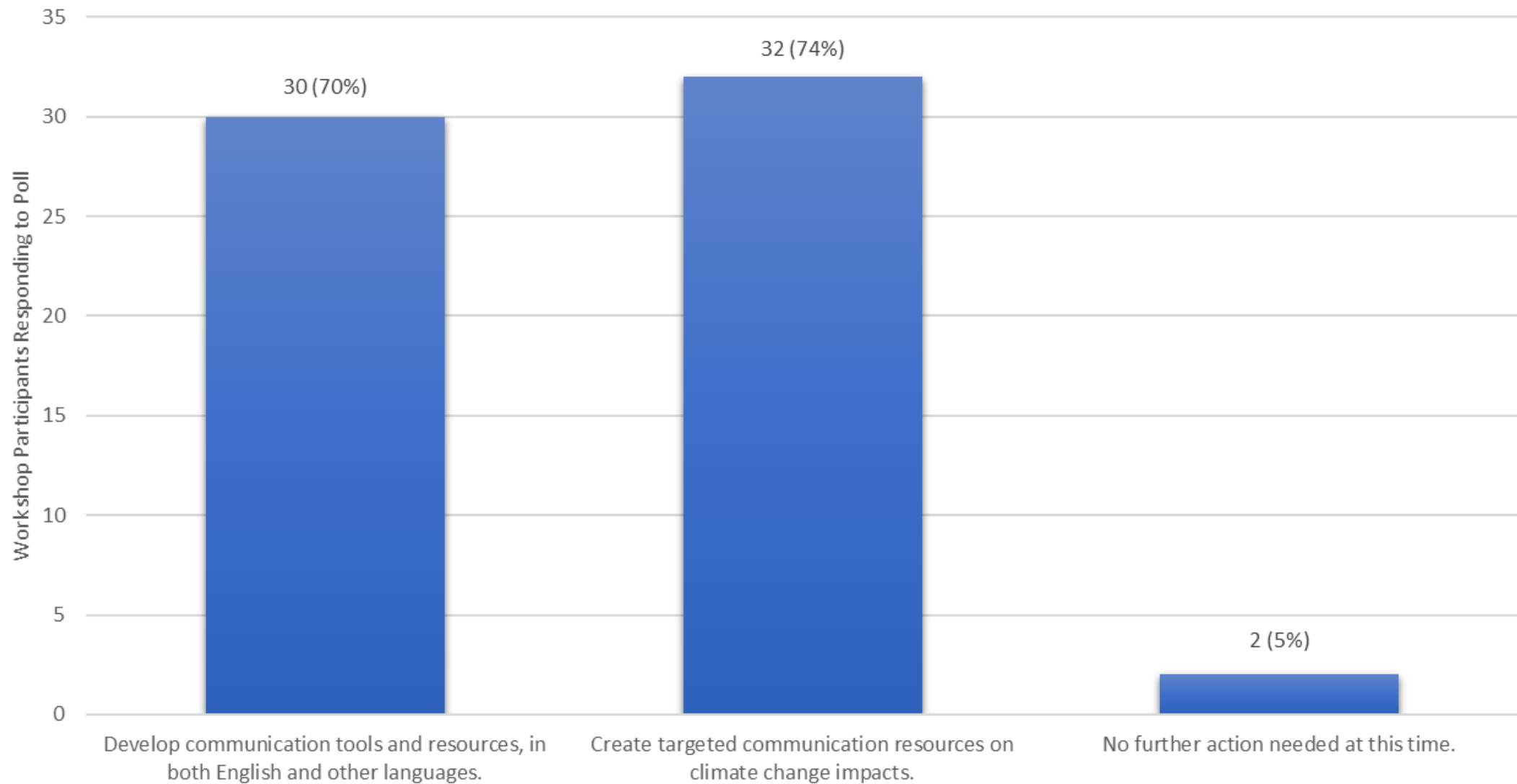
Create targeted communication resources on climate change impacts.

Zoom Poll



From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 5





Facility and Infrastructure Design and Management

Plans and guides that that accounts for future climate conditions and sea level rise.

Prepare state facilities and equipment.

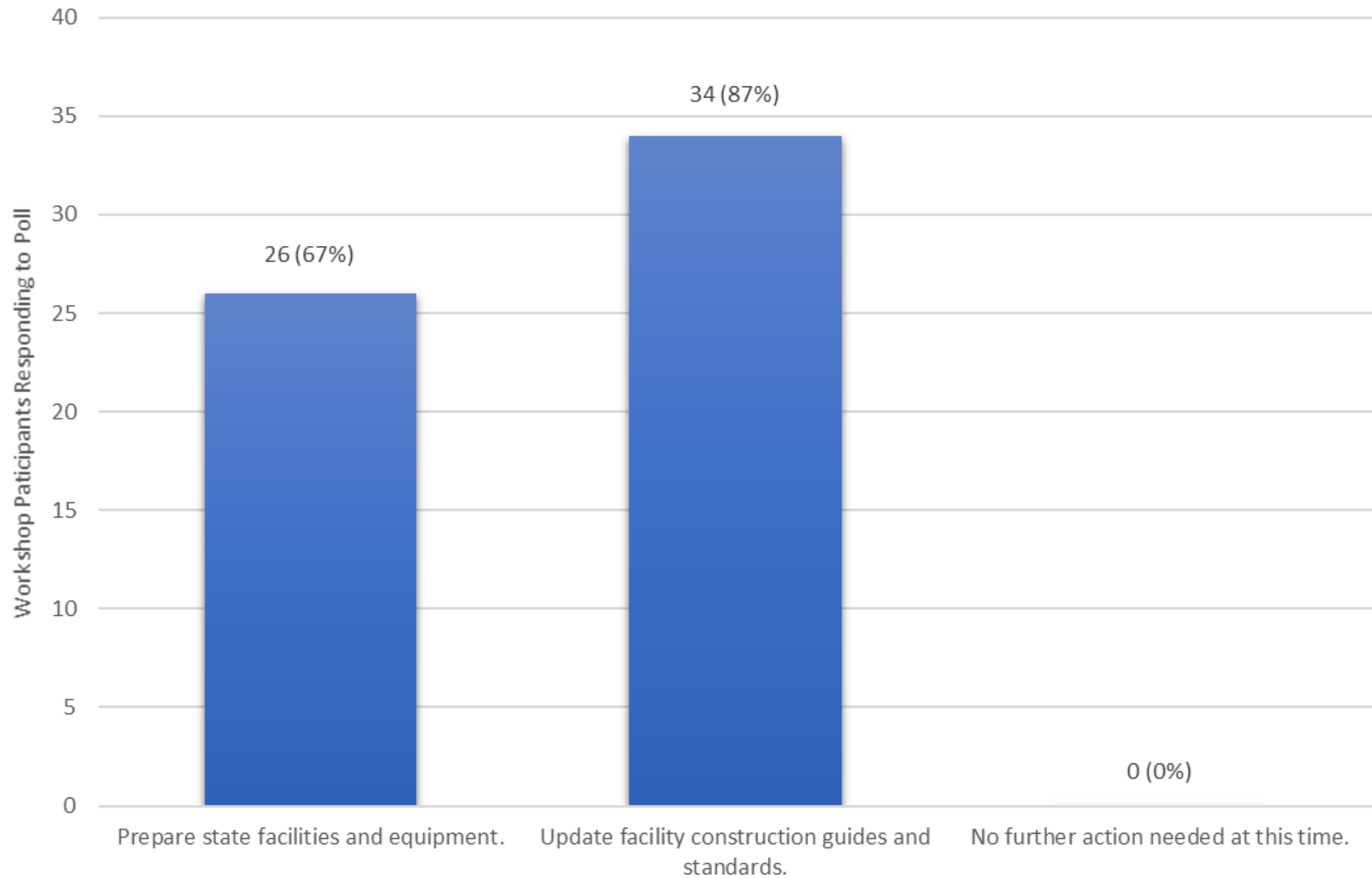
Update facility construction guides and standards.



Zoom Poll

From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 6





Administrative Processes

Review and edit processes related to operational guidelines and documents on how Agencies do business.

Plans and training policies that support the health and safety of personnel.

Improve state Agency ability to respond to extreme events and other disasters.

Increase state Agency capacity to adapt through funding, staffing, and training.

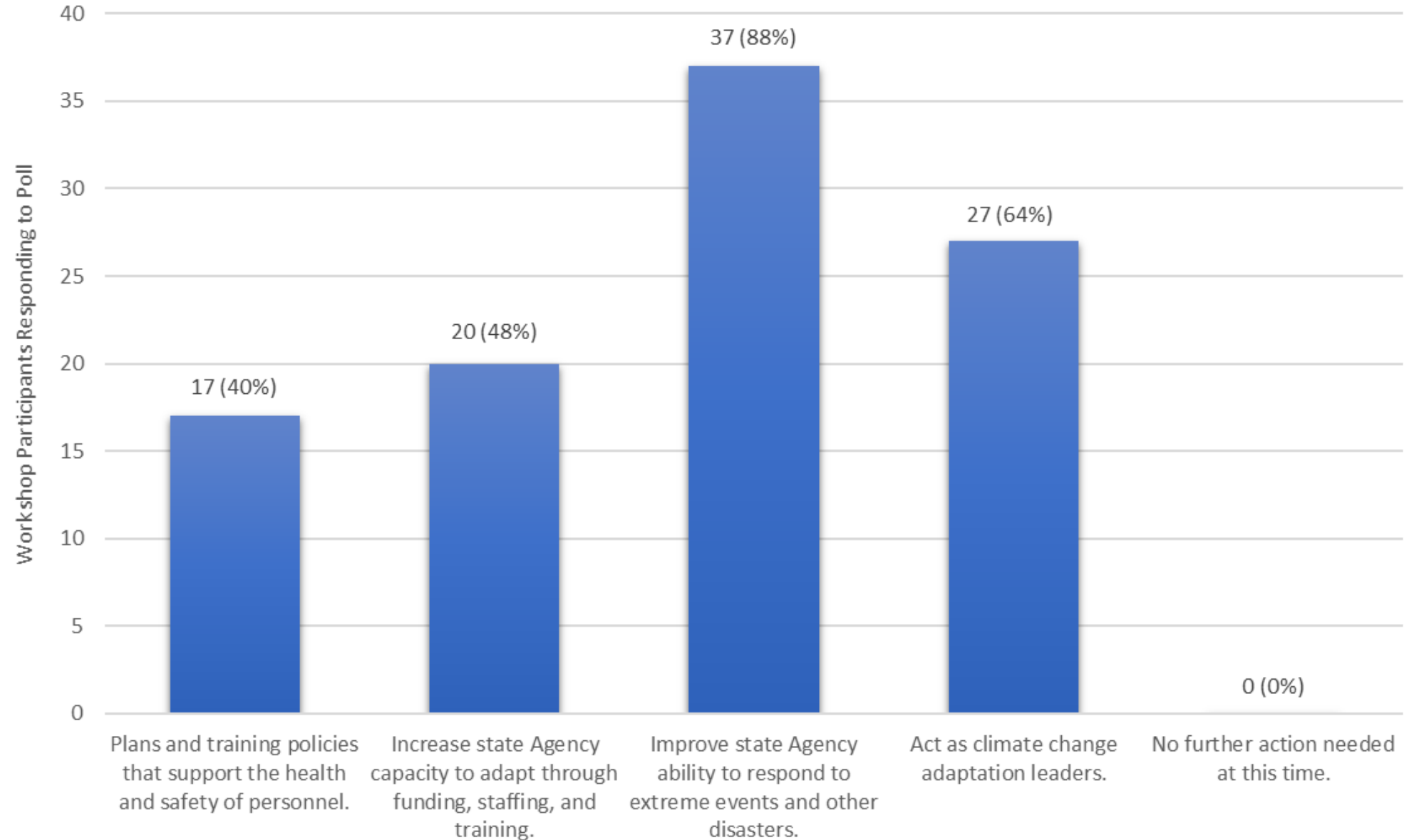
Act as climate change adaptation leaders.



Zoom Poll

From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 7



DELAWARE'S

Climate Action Plan

**What did
we miss?**

DELAWARE'S

Climate Action Plan

Questions

- We will answer as many questions as possible that were submitted via the Q&A box.
- All questions from the Q&A box answered live or not will be collected, answered and uploaded on declimateplan.org.
- The question document will be uploaded by Friday, October 16th.

Make Your Voice Heard



Provide Additional Feedback

- Feedback can be submitted via an online feedback form at declimateplan.org until Friday, October 16th.
- Comments can be submitted via an online MetroQuest Survey found at declimateplan.org until Friday, October 16th.



Help Improve Our Workshops

- Complete a brief questionnaire emailed to you within 24 hours to help us improve how we collect public input and host public workshops.



THANK YOU

DELAWARE'S
Climate Action Plan

www.declimateplan.org | declimateplan@delaware.gov | @EnergyClimateDE